

Film and Slide Scanners

reflecta®



For every
application the
suitable scanner



BETRACHTEN



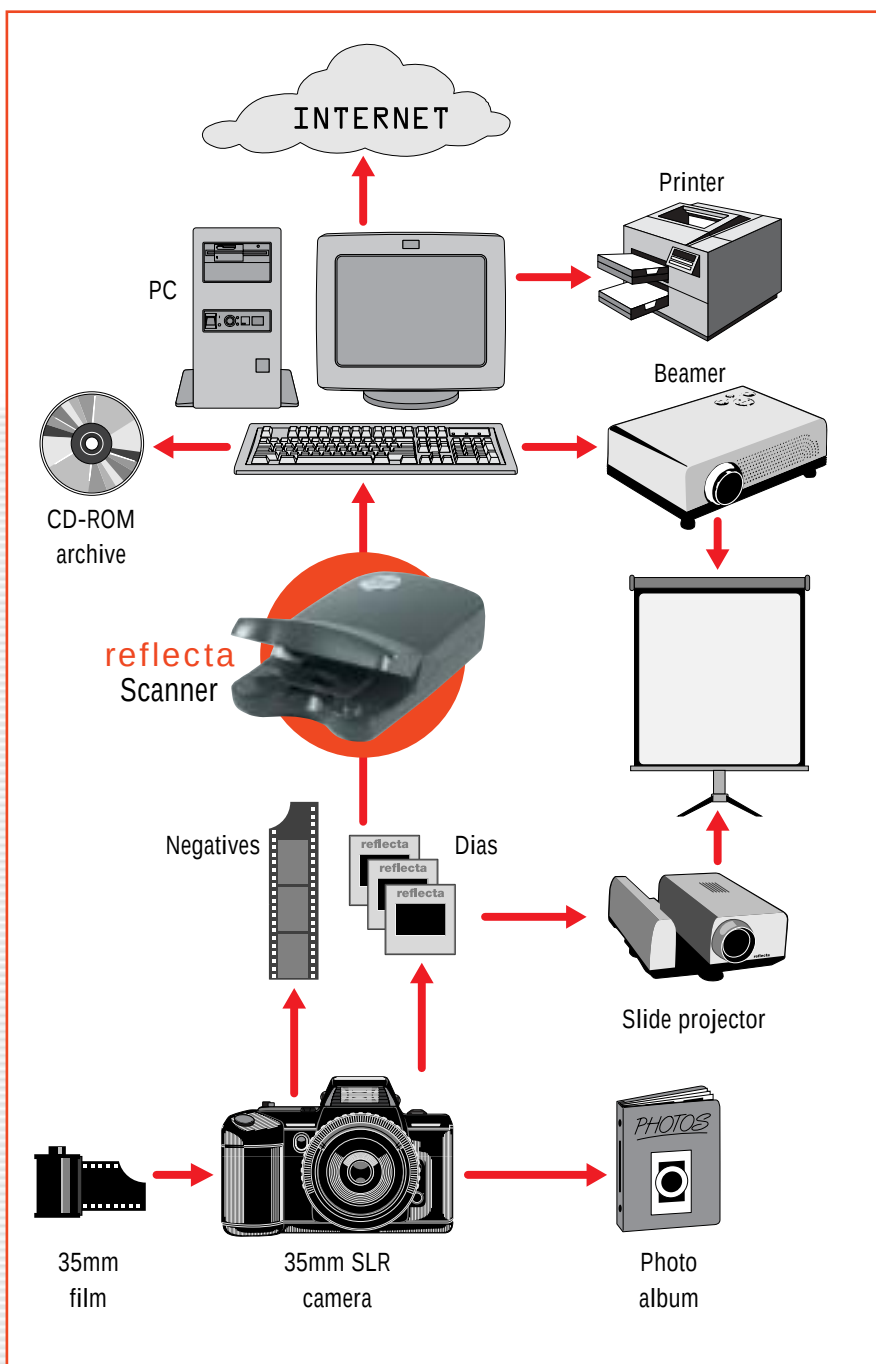
PROJIZIEREN



SCANNEN



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The scanner and the periphery
This chart shows the manifold possibilities of use a film scanner offers. Virtually all possibilities are open to the users.



Analogue scanners in the digital world...

Analogue was yesterday, digital is today – so do away with all slides, cameras and accessories?

Hold on; there are some good reasons to keep the proven technology – without turning down the modern media.

- Slides offer a unique brilliance and colour density.
- Slides are as versatile as hardly any other medium.
- Common SLRs offer comprehensive accessories, have become well-priced and allow for a trouble-free handling.

Slide scanners – lent wings to your camera...

A slide scanner in combination with an analogue photo camera can be an interesting alternative to a digital camera.

Since professional analogue SLRs still excel their digital pendants by far, you can easily sacrifice the minor deterioration in quality suffered when scanning a slide or a film strip. The result will be convincing anyway. Slide scanners are also interesting for digital photographers who have a large stock of slides which they want to transmit to their computers.

On the following pages, we try to do away with many factoids which have emerged time and again. Besides, we have tried to explain many correlations as clearly as possibly. This starts with automatic operation and does not even end with zooming.

At the end of the catalogue, we included a glossary which explains the key terms relating to scanning and image editing.

Enjoy the reading.

Does a good digital camera replace an SLR?

Today's digital cameras produce very good photos which can be printed in photo quality. However, even the best digital cameras do by far not offer the same photo information as provided by a good SLR. A reasonable example: A customary 5 megapixel digital camera produces 5 million pixels – the maximum amount of information which can be viewed on a monitor or printed on paper. A good photo, in contrast, provides 10-20 million pixels.

High-quality digital cameras may reach SLRs as far as image quality is concerned. However, they still provide distinctly less information than contained in a negative or a slide. The difference is not noticed when viewing the photos on a monitor or printing them in a format of 10x15 cm. If a detail of the photo, however, is zoomed or the photo is printed in DIN A4 format, the higher pixel density of negatives or slides becomes obvious.

Since the up-to-date film scanners with a 4000 dpi resolution scan up to 21 million pixels from a slide or negative, there is no better combination at present than an SLR in combination with a film scanner to generate the most perfect digital photos.

Are positives (slides) or negatives better suited for scanning?

At first, it seems obvious that the scanning of positives, be it a framed slide or a film strip, is easier than digitalising negatives. After all, a positive is a real photo which can be compared directly to a scan displayed on a monitor. The mere scan preview will indicate whether the exposure of the scanner is adequate and whether the autofocus of the slide scanner has found the correct focus. With negatives, however, the film strip shows inverse photos which, in addition, have an orange coloured mask. A high degree of imagination is required to conclude the correct picture from the negative. The scanner software has to correct the orange coloured mask. It is even more difficult to determine on a negative whether the photo was exposed correctly and whether it is sharp or not. The big advantage of directly comparing a scan or a preview in the scanner software to the original does not exist with negatives.

There are even more advantages for slides: Slide films have a finer grain, have a larger contrast range, provide more intense colours and offer a higher resolution. Besides, slide films have a higher density range: The maximum density of a slide film can be up to $d_{max} = 4$ to allow for finest shades of the individual colours.

The high density range of a slide film, however, also holds disadvantages: Many bottom of the line film scanners do not have such a high density range to be able to differentiate individual shades of slides when approaching the maximum density. By nature, negatives have a smaller density range so that even inexpensive scanners can handle negatives well. Photographers know that it is more difficult to take a slide than a negative since slides take amiss the tiniest error in exposure while negatives are much more tolerant due to their lower contrast and dynamic range. The same applies to scanning: Correctly exposed positives can be scanned very easily. For slightly under- or over-exposed slides, however, corrections in the scan programme or in the subsequent image editing will be required.



Does a film scanner convert negatives to positives automatically?

The scan process for scanning positives (slides) is as follows: A lamp screens the film and a sensor measures the transmitted light. The brightness of the individual shades is used to compose the finished photo. But what about negatives? Do you get a "negative" image when scanning a "negative" photo which then must be inverted and edited with an image editing programme to eventually obtain a normal positive? Or does the scanner perform this time-consuming job automatically?

To start with: A negative is not simply converted to a positive by inverting the colours, i.e. converting black to white, etc. Colour inversion indeed is required to obtain a normal photo from a negative. In addition, the orange coloured mask must be subtracted or extrapolated. Since carrier material and film emulsion vary from manufacturer to manufacturer and partly from film type to film type, different computation procedures are necessary for a best conversion of a negative to a positive.

With modern film scanners, users do not have to care about this negative/ positive conversion: The scanner or the scan software will realize this automatically. The basic settings of each scan software require to set the type of film being scanned: positive, negative or negative black and white. If the type is set to negative, a scan will automatically produce a positive image on the monitor or in the output file. Due to the more complex scan process and the necessary inversion and film carrier correction, the scanning of a negative takes up to three times longer than scanning a positive.

Why does the scanning of negatives take so much longer than scanning slides?

When studying data sheets and test reports about film scanners, you will realize that the time to scan a negative is distinctly longer than to scan a positive. Users who digitise both negatives and positives will confirm that the time difference between the two methods amounts to a factor of 2 to 4. Why does the scanning of negatives take so much longer than scanning positives?

With positive scans, the photo is simply screened and the transmitted light is converted directly to pixels. For negative scans, the necessary colour inversion and the extrapolating of the yellow-orange coloured mask from the measured image signal is performed in addition. Thus, a negative scan requires more steps than a positive scan to create a finished image.

If you once scanned a negative as normal positive unintentionally or on purpose, you may have realized a distinctly longer scan time than would have been the case for a normal slide. What is the reason for the longer duration although a normal positive scan was performed? The reason is brightness. A correctly exposed negative is significantly darker than a correctly exposed positive. Film scanners require more time for dark images than for bright ones. If you have ever compared the scan time for a photo taken at night (slide) to a beach motive (slide), you will confirm the considerable time difference.



My slide scans are much too dark.

Why is this so?

A well-known phenomenon with slide scanners is that the scans appear darker than the original on the light box or on the screen. Are the scans actually darker and what can I do?

As a first observation, slide films differ from negative films in a negative way in as far as that positive photos must be exposed exactly and correctly. Negative films are more likely to compensate for slight exposure errors than positive films. Frequently, a whole series of slides is slightly underexposed which, however, will not be noticed when projected to a big screen with a powerful lamp in a darkened room. The result is that many photographers think their slides are exposed correctly and adequately bright when they actually are a bit too dark.

It may nevertheless happen that even correctly exposed slides appear darker on a monitor than on a fabric screen. In the majority of cases, this is due to a faulty monitor calibration, or no calibration at all. We recommend all users who scan and edit photos to calibrate their CRT or TFT flat monitors to a worldwide standard using a calibration kit. This is the only way to ensure that the monitor will display the scan or a digital photo in its true colours.

Only when the step of a hardware based monitor calibration has been performed and the scans still are too dark on the monitor, is it worthwhile to adjust the brightness or gradation of the scan software or image editing programme.



How many pixels does a small picture film contain?

Times ago, hardly anybody thought about the resolution of a small picture film. Today, however, ever more proud owners of 5-10 megapixel digital cameras ask themselves how many pixels an "old" analogue film might contain. This question can be answered easily when knowing that a small picture films has an approximate surface of 24 x 36 mm and a resolution of about 100-130 line pairs per millimetre. A line pair can be imagined as a black line next to a white one, i.e. two lines of different colours. 100-130 line pairs per millimetre thus correspond to 200-260 points per millimetre.

Thus, the number of pixels on a small picture film with 100 line pairs per millimetre is calculated as follows: $(36 \times 100 \times 2) \times (24 \times 100 \times 2) = 7,200 \times 4,800 = 34,560,000$ pixels. Thus, a normal small picture film with a resolution of 100 line pairs per millimetre contains almost 35 megapixels per photo. A resolution of 130 line pairs per millimetre even results in 58 megapixels.

A film scanner with an optical resolution of 4000 dpi retrieves about 20 megapixels from a small picture photo.

What is the difference between TIF, JPG and PSD files?

When scanning a picture with Adobe Photoshop and storing it, a PSD file of a huge size will be generated. If the same picture is stored as TIF file, the size will hardly change whereas the size is reduced drastically when storing the picture as JPG file. What is the difference between the three formats?

A TIF file contains the pure image data in an uncompressed form, i.e. all the information which the scanner retrieves and provides from the scanned photo. TIF files are very large and impractical to handle. When a TIF image is converted to a JPG image, the file size will be reduced by a factor of up to 10 without noticeably losing quality.

A PSD file is an own file format of Adobe Photoshop. It contains all the information of a TIF file, i.e. all the original photo information, as well as other Photoshop internal information like e.g. the zoom factor which was active in Photoshop when using the image file the last time. In Photoshop, a text tool can be used to add e.g. a label to an image. If the modified image is stored as PSD file, the label can be edited or moved later. If the modified image, however, is stored as TIF file, the text is transferred into the image and cannot be edited any more.

Can you print a scanned slide on DIN A4 format?

Time and again, photographers are fascinated when a tiny slide is turned into a sharp image of several square feet on a projection screen. Of course, the viewers are at distance of several feet to the screen and will not detect the tiniest details. The question arises how sharp and good an image printed to DIN A4 will be. After all, such an image will be viewed at shortest distance.

For decades, a print with 300 dpi has been considered a pin sharp photo. When the first laser printers with 300 dpi entered the market by the end of the 80s, millions of people dreamt of pin sharp prints with laser printers. Even today, a print with 300 dpi is considered to be absolutely adequate for a high quality print.

As a consequence, the question is whether the resolution for scanning a 24 x 36 mm negative or slide is high enough to reach 300 dpi for printing.

If a 24 x 36 mm slide is scanned with 2700

dpi, the resulting image has about 3,800 x 2,600 pixels. The pixels are distributed on a DIN A4 sheet.

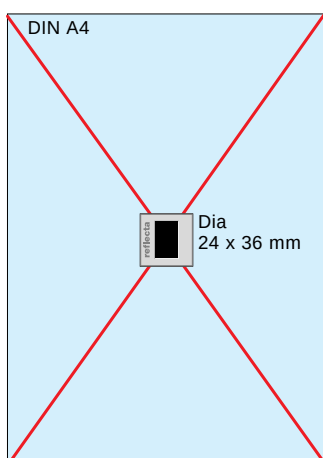
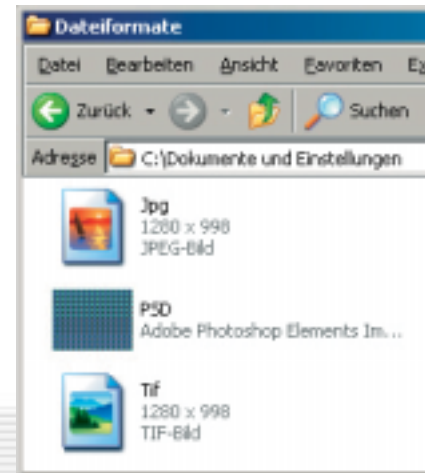
As you will know, the size of a DIN A4 sheet is 29.7 x 21.0 cm. Ignoring a surrounding frame of 0.7 cm (usual print frame), the effective print size is 28.3 x 19.6 cm. If these dimensions are divided by 2.5 (an inch is about 2.5 cm), the resulting print format is 11.3 x 7.8 inch. The almost 3,800 x 2,600 pixels are distributed on this area. A corresponding division will result in a print resolution of about 330 dpi. Thus, the desired resolution of 300 dpi is exceeded by about 10%.

Why does the scan programme allow for a colour depth of 8 or 16 bit, although some scanners have 48 bit? Some reflecta film scanners have a colour depth of 48 bit, but the scan software allows for a setting of 8 bit or 16 bit only in the respective list field for the colour depth. It means that 8 or 16 bit are available for each colour channel (red, green, blue), i.e. a total of 24 or 48 bit.

How does the ICE/MagicTouch method work?

How can a scanner recognise whether a black dot in a blue sky is a dust grain which should be removed or a bird crossing the horizon? With the image alone, the difference cannot be determined, but by using the film material.

The ICE/MagicTouch dust and scratch removal is no software function as many users think. An ICE/MagicTouch scanner rather distinguishes itself from a film scanner without ICE/MagicTouch by a modification of the hardware. With an ICE/MagicTouch scan, a fourth source of light is used working on an infrared



basis. An infrared beam scans the surface of the film. Usually, negatives or positives have a smooth surface. The infrared beam will detect valleys (scratches, grooves) and mountains (dust grains, fingerprints, etc.) on the surface. When such a valley or mountain is detected, the corresponding software corrects the respective spot with the information of the pixels found in the vicinity of the faulty spot.

Does the scratch removal method also work with black and white films? The automatic dust and scratch removal system works with colour slides and negatives exclusively. When scanning black/white photos, the removal system must be switched off.

If you nevertheless leave the scratch removal system active when scanning a black/white film, a milky photo will be the result where the rough outlines only of the displayed motives are visible.

Does the scratch removal method also work with Kodachrome films?

The ICE/MagicTouch dust and scratch removal system works with Kodachromes in a way that dust and scratches are corrected effectively. A negative effect, however, is that also parts of the photo where there is no dust will be blurred. Therefore, the system should be deactivated for Kodachromes. The reason for the problems of the ICE/MagicTouch method with Kodachromes is the silver content of the films. In principle, Kodachromes are black/ white films which are coloured only afterwards.

What is the advantage of a film scanner compared to a flatbed scanner with illumination source?

The main difference between flatbed scanners with illumination source and film scanners is that in flatbed scanners, the film is placed on a glass plate from where it is scanned.

In film scanners, the light is transmitted directly through the films. Since glass plates have a negative effect in the imaging performance of optical devices, the mere technical layout of film scanners offer a decisive advantage compared to flatbed scanners. Disturbing effects, like Newton rings or blurring due to bent plates due to the heating of the glass plate do not occur with film scanners at all or only when scanning slides with glass frames.

Another advantage of film scanners is their optical density:

The main task of flatbed scanners is to scan top-view photos, i.e. reflecting photos with a very small density range. To render all details of film material, an optical density up to a value of 3 is required which is reached by very good film scanners only. As a result of an insufficient density range, the shadow areas and areas with bright lights have little contrast.

What resolution is required for a beamer projection?

An average beamer may be able to project as many pixels to a wall as an average TFT monitor can display, namely 1024 x 768 pixels, multiplying to some 800.000 pixels, not even 1 megapixel. Even a small picture slide scanned with 2000 dpi provides as much as 5 megapixels. If the scan resolution is cut half to 1000 dpi, the resulting image still has about 1.2 megapixels, which is absolutely sufficient for a beamer or a normal monitor.



How can I view scanned photos on my TV set?

Now, you have scanned 100 most beautiful photos of your holidays, and you do not want to look at them on the small PC monitor in your office but enjoy them on the large TV screen in your living room.

There are several possibilities to have this pleasure come true:

1. Virtually all standard graphics cards have a TV outlet or even a S-VHS outlet. These interfaces can be used to connect a TV set to a computer. Then, you will see everything you would normally see on the PC monitor on the TV screen, including e.g. a photo presentation.
2. You can burn the scanned photos on a video CD and play it with a DVD player. You will then see your scanned photos as a film on TV. You can also burn individual images to a video CD. Virtually all DVD players of the newer generation will play video CDs; older players, however, do not yet know this format.

What is the advantage of an IT-8 colour calibration?

The IT-8 colour calibration is a colour correction method. There is a standardised template which has a large number of individual colour fields. This standard image is scanned, and the calibrating software measures the scanned colours in the individual colour fields. Afterwards, the software compares the measured colours to an IT-8 reference table where the actual RGB values are specified for each individual colour field. This comparison results in a difference table containing the colour deviations of the scanner. For future scans, the scanned colours will be corrected based on this difference table to obtain scans with true colour values.

The IT-8 colour calibration is contained in the full version of the scan software Silverfast AI which can be obtained from reflecta.

ROC colour restoration / Auto Color
ROC* is the abbreviation for Restauration Of Colours. ROC* is an effective method to restore the colours of old, faded or yellowed photos.

Such material can be freshened with ROC* impressingly. However, ROC* is not a method which can be applied to any picture. Photos taken on a beach with blue sea and blue sky, for example, will become extremely distorted with ROC*. The ROC* colour restoration is a method which is purely software controlled.

GEM graininess reduction /
Digital Noise Reduction

GEM** is the abbreviation for Grain Equalisation & Management. The grain equalisation algorithm analyses the scanned photo directly after the scanning for recurring patterns on the film grain level. Based on this analysis, film grain structures are recognized and smoothened. The application of GEM** always results in a certain blur. Due to this reason, photos scanned with GEM** should be processed with a deblur masking to get edges pin sharp again.



* ROC/Autocolor
** GEM/Digital Noise Reduction





Smartphone Scanner

How do I transfer important paper photos, slides or negatives to my smartphone? The questions pop up often in everyday life. With the reflecta Smartphone Scanner and the iPhone 4/4s/5/5s or the Samsung Galaxy S2/S3/S4 users can now digitize slides and negatives (35mm) as well as photos (9x13cm, 10x15 cm) very easily.

Technical data:

Filmtype: 35 mm, Photo 9x13 cm, 10x15 cm
Focus area: Fixed focus
File format: JPEG
Scan mode: single pass
Light source: built-in LEDs
Dimension: 245x125x158 mm (LxWxH)

Includes:

Hardware: Slide holder /film holder (35 mm), Photo holder (9x13/10x15 cm), USB-cable, Adaptor for Smartphones (5 pieces), 4 pcs AA batteries, user manual

Software: free Download of App „iphotojet“ from Apple App Store or from Android Play Store, compatible with iPhone 4 / 4s / 5 / 5s and Samsung Galaxy S2 / S3 / S4

Art.No.: 64380



x8-Scan

Due to the application of a high performance CMOS image sensor with 1800 dpi the reflecta x8-Scan achieves very good scans. Quick Connecting using USB 2.0; no additional power adaptor required.

Technical data:

Film Type: Negative and Positive as strip (35mm) or slide (5x5cm)
Image Sensor: CMOS
Color Depth: 24 Bit
Resolution: 1800x1800 dpi at 5 Mio. Pixel
Scanning Time: 1 second
Scan Area: max. 24,3 mm x 36,5 mm
Opt. Density: 3.0 Dmax
Interface: USB 2.0
Dimensions: 90x104x165 mm (LxWxH)

Includes:

Hardware: slide holder for 3 slides film holder for film strips with up to 6 images, cleaning brush, user manual

Software: ArcSoft Mediaimpression

System requirements:

PC: Pentium III or higher, with at least 512 MB RAM, Windows XP/Vista/7/8 (32/64 bit)
Mac: Mac OS X 10.5 or higher

Ref. No. 64280





x7-Scan

With the reflecta x7-Scan with 3200 dpi resolution it's possible to scan with 14,0 Megapixel and beside film and slide additionally pocketfilm (110) and 126 mm film. The reflecta x7-Scan offers a 2,4" LCD-Display, an integrated SD/SDHC card slot and a Lithium-Ion battery to allow using the scanner completely independent from a PC or power supply, respective as Stand-Alone Scanner.

Technical data:

Filmtype: Negative and Positives as strip (35mm) or slide (5x5cm), 110 mm (Pocket) film as strips, 126 mm film as strips
 Resolution: 3200 x 3200dpi at 14 Mio. Pixel
 Display: 2,4" LCD-Display
 Bright. Correction: via Button
 Colour Depth: 30 Bit
 Optical Density: 3.0 Dmax
 Image Sensor: CMOS
 Lamp: 3 white LEDs
 Scan Speed: Fine Scan at 3200dpi: 2 Sec.
 Max. scan range: 24,3 x 36,5 mm
 PC Interface: USB 2.0 (not USB 1.1)
 TV-Out (NTSC/PAL)
 Mem. Card Slot: SD / SDHC
 Battery Op. Time: approx. 2.5 hours or approx. 2,000 scans
 Dimensions: 105 x 104 x 164 mm (L x W x H)

Includes:

Hardware: slide holder for 3 framed slides up to 3,2 mm thick, film holder for film strips up to 6 exposures, film holder for 110mm (Pocket) film strips up to 8 exposures, film holder 126mm (instamatic) for film strips up to 7 exposures, USB-Cable, TV-Out Cable, AC Adapter, Lithium-Ion Battery, Manual, Cleaning Brush
 Software: ArcSoft MediaImpression (image editing program only)

Ref. No. 64370



x9-Scan

With a resolution of 5 megapixel and an extremely fast scan time of 1 second for a scan, the reflecta x9-Scan provides top quality scans. The scanner is PC independent, it's not possible to scan via PC. Due to the supplied lithium battery or AC adapter, the scanner can be used anywhere. The scanned images are stored on a SD/SDHC card (not included) and can be viewed on the 2.4" LCD Display immediately.

Technical data:

Filmtype: Negative and Positive as strip (35mm) or slide (5x5cm)
 Resolution: 1800 dpi
 Scanning Time: 1 Second for 1 picture
 Color Depth: 24 Bit
 Sensor: CMOS
 Lamp: 3 white LED
 Scan Area max.: 24,3 x 36,5 mm
 PC Interface: USB 2.0
 Additional Interface: TV-Out (NTSC/PAL)
 Display: 2,4" TFT LCD Display
 Focus: Fixfocus
 EV adjustment: +- 2.0 EV
 Color Balance: automatic
 Card Slot: SD/SDHC up to 32 GB
 Dimensions: 108x106x143 mm (H x W x L)

System requirements for software:

MAC: OS X 10.5+ or higher
 PC: XP, Vista (32 u. 64 Bit), 7 (32 u. 64Bit), 8 (32 u. 64 Bit)

Includes:

Hardware: Slideholder for 3 Slides up to 3,2 mm thickness, Filmholder for filmstrips up to 6 images, USB- and TV Out Cable, Lithium Battery, AC Adaptor, User manual, Image Editing program (MediaImpression 2)

Ref. No. 64290





iPad-Scan

With the reflecta iPad-Scanner you can scan automatically documents / photos up to size of 21,59 x 35,56 cm (US-Legal) directly on your iPad / iPad2 / iPad3. The scanner has got a resolution of 300 dpi and the originals are feeded automatically and directly saved as JPEG files. The scanner can also be used as Docking-Station for iPad / iPad2 / iPad3.

Technical data:

Image sensor: Color Contact Image Sensor (CIS)
 Light source: LED (R, G, B)
 Optical resolution: 300 dpi
 File format: JPEG
 Scan size max: 21,59 x 35,56 cm (US-Legal)
 Scan speed: 6 pages per minute @ A4 color 300 dpi
 Power requirement: AC 100V to 240V, 50/60 Hz; 5V, 2A by the 10W USB Power Adapter (not supplied, iPad power adapter)
 Power cons.: 10 W (Maximum)
 Weight: ca. 680g
 Dimensions: 308x111x72mm (LxWxH)

Includes:

Hardware: Scanner, Mini-USB-cable, calibration sheet, roller cleaner, lens cleaner, photo protective sleeve, user guide
 Software: free download from App store for i-Scan App Automatic feed, Realtime preview, Can also be used as Docking-Station for iPad / iPad2 / iPad 3

Ref. No. 65958



KWIK-Scan

This is the fast, comfortable and easy way to scan, archive and organise books, newspaper articles, recipes, contracts, documents and photos. Simply drag the scanner over the scan document. The data is stored in the JPG format directly on the supplied microSD card. The scanner can be connected to the computer via the USB port to read the data. With its low weight and compact design, the KWIK-Scan can be used anytime and anywhere. Editing the scanned documents on the computer is very simple with the included software.

Technical data:

Media: Photos, documents, contracts, recipes, books, newspaper articles etc.
 Image sensor: Color Contact Image Sensor (CIS)
 Opt. resolution: 300 / 600 / 900 dpi
 Scanning Speed: 13 sec. (600 dpi + A4)
 Scan range: max. 21 x max 120 cm
 Interface: USB 2.0

Includes:

Hardware: Scanner, 4 GB micro SD card with adapter for SD card, Pouch for KWIK-Scan, 2 X AA Alkaline batteries, USB cable, user manual,
 Software: OCR (optical character recognition) software

Ref. No. 65950





PhotoScan A4

This is the fast, comfortable and easy way to scan, archive and organise newspaper articles, recipes, contracts, documents and photos. The scanner feeds the original automatically. The data is stored directly onto a memory card (SD /SDHC, MS, MS Pro, MMC) in the JPG or EXIF format. The scanner can be connected to the computer via the USB port to read the data. With its low weight and compact design, the reflecta PhotoScan A4 can be used on any desk. Editing the scanned documents on the computer is very simple with the included software.

Technical data:

Media: Photos, documents, contracts, recipes, business cards
 Opt. resolution: 300 / 600 dpi
 Colour depth: 24 bit
 Image sensor: Color Contact Image Sensor (CIS)
 Scanning speed: approx. 5 seconds (10x15), approx. 12 seconds (A4)
 Scan range: max. 210 x max. 297 mm
 Mem. card slot: SD/SDHC, MS, MS Pro, MMC
 Interface: USB 2.0
 Dimensions: 269 x 59 x 44 mm (L x W x H)

Operated with power adapter

Includes:

Hardware: Scanner, USB cable, power adapter, user manual, cleaning brush, calibration card, photo protecting envelope (for scanning photos)
 Software: OCR (optical character recognition) software

Ref. No. 65956



3in1 Scanner

With reflecta 3in1 Scanner you can digitize your slides, negatives and photos (9x13, 10x15 and 13x18 cm). The scanner has got a resolution of 1800 dpi (3600 dpi interpolated) and a 2.4" LCD-display. Thereby the 3in1 Scanner is computer independent. The images will be stored directly on SD, SDHC, MMC, MS and MS Pro memory card. The files from the memory card can be transferred onto the computer via the USB port and the USB cable.

Technical data:

Film Type: Negative and Positive as strip (35mm), slide (5x5cm), photo up to 13x18 cm and business cards
 Opt. Resolution: 1800 dpi at 5 Mio. Pixel
 Color Depth: 24 Bit
 Image Sensor: CMOS
 Scanning Time: Scan at 1800dpi 2 sec.
 Scan range: 24,3 mm x 36,5 mm for slides, Negative and Positive film stripe; 13x18 cm for photo
 LCD-display: 2.4"
 Card Slot: SD, SDHC, MMC, MS, MS Pro
 Interface: USB 2.0
 Dimension: 220 x 208 x 147 mm (L x W x H)

Power Supply USB 2.0

Includes:

Hardware: slide holder for 3 slides, film holder for film strips with up to 6 images, Photo holder for 9x13cm, 10x15 cm, 13x18 cm and business cards, cleaning brush, user manual, USB cable
 Software: OCR (optical character recognition) software

System requirements for OCR Software:

PC: Windows XP/Vista/7/8/8.1

Ref. No. 64220



Super 8 Scanner

With a resolution of 1920x1080 p (Full HD) reflecta Super 8 Scanner allows your Super 8 films (5.78 x 4.01 mm) to digitize quickly and easily. The scanner is connected to the supplied power cable and connected via USB cable to the PC. Then you have to install the included software Cyberview and clamp the roll of film onto the scanner. Ready to go. The film will be transported automatically and initially scanned frame by frame.

Technical data:

Filmtype: Super 8 film (Positive or Monochrome Film) 18 frames / sec + 24 frames / sec
 Resolution: 1920 x 1080 p (Full HD) or 1280 x 720p (HD)
 Color Depth: 24 Bit
 Scanning Time: 5,0 seconds / 2 pictures (about 2 hrs. 46 mins for 15m Super 8 Film Reel)
 Video File Size: 190 MB / 15 m Film (HD)
 Scan Area: max. 5,79 x 4,01 mm (no 8mm film)
 Filmtransport: automatic
 Sensor: CMOS
 Light Source: LED
 PC Interface: USB 2.0
 Film Format: AVI
 Dimensions: 213 (L) x 143 (W) x 232 (H)
 Max. film length: 180 m

Includes:

Hardware: USB Cable, Power Adapter, manual
 Software: Scansoftware CyberView,

System requirements:

PC: Windows XP with SP2, Vista, 7, 8 (32 and 64 Bit), CPU: Intel P4 2 GHz or higher, RAM: 4 GB minimum, Hard disk free space: min. 35 GB, Memory Requirement 15 m film / playing time 3.5 min.: 3 GB

Ref. No. 66020



CrystalScan 7200 with ICE™

The ideal device for digitising your slides and negatives with a high resolution. The scanner offers 7200 or 3600 dpi to allow for high-quality prints up to DIN A4 size and larger.

Technical data

Film type: Negatives and positives as strips (35 mm) or slides (5x5 cm, up to 3.2 mm thick)
 Manual loading
 Opt. resolution: 7200 x 3600 dpi
 Optical density: 3.2 Dmax
 Colour depth: 48 bit
 Image sensor: Linear colour CCD
 Interface: USB 2.0

Includes

Hardware: Scanner, power adapter, USB cable, User manual
 Software: Scansoftware Cyberview X, Image Editing Program; optional: Silverfast SE, Ai Studio

System requirements

PC: Pentium III or higher with min. 512 MB RAM, Microsoft Windows XP/Vista/7/8
 Mac: Apple Macintosh with USB port and 512 MB RAM; Mac OS version 10.5 or higher

Ref. No: 65380 (CrystalScan 7200)
 65380 + 65396 (CrystalScan 7200 + Silverfast SE)





ProScan 10T

With a resolution of 10.000 dpi, a dynamic range of 3.9 Dmax and an extreme fast scanning time of 7 Min. for a color scan with 10.000 dpi and 24 Bit color depth, reflecta ProScan 10T provides top quality scans. The high scanning speed and the hardware based dust and scratch removal system **MAGIC TOUCH** contribute the scanner to a very effective working tool. Using the attached slide and film holder allows a high scan efficiency and finally results in a time saving.

Technical data:

Filmtype: Negative and Positive as strip (35mm) or slide (5x5cm),
Resolution: 10.000 dpi
Scan Area max.: 24,3 x 36,5 mm
Color Depth: 48 Bit
Dynamic Range: 3,9 Dmax
Image Sensor: Linea Color CCD
Lamp: Film saving LED
Scanning Time: 7 min. at 10.000 dpi and color depth of 24 Bit (incl. Magic Touch)
Interface: USB 2.0
Dimension: 275x167x80 mm (L x W x H)

Includes:

Hardware: 1 x slide holder for 4 slides with up to 3,2 mm thickness, 1 x film holder for film strips with up to 6 images, Power Adaptor, USB-Cable, User Manual
Software: Scansoftware Cyberview, Adobe Photoshop Elements 12; optional SilverFast Ai Studio

System requirements:

PC: XP, Vista (32 and. 64 Bit), 7 (32 and. 64Bit), 8 (32 and. 64 Bit), CPU: Intel P4 2 GHz or higher, RAM: 1 GB Minimum, Free Hard Disk Space: min. 10 GB
MAC: OS X 10.5+ or higher, CPU: Intel Core 2 Duo, Speed 1.8 GHz, RAM: 1 GB, 667MHz, DDR 2 SDRAM, PowerPC is not supported

Ref. No. 65450





RPS 10M

With a resolution of 10.000 dpi, a dynamic range of 4.2 Dmax and an extreme fast scanning time of 7 Min. for a color scan with 10.000 dpi and 24 Bit color depth, reflecta RPS 10M provides top quality scans. The high scanning speed and the hardware based dust and scratch removal system **MAGIC TOUCH 3** contribute the scanner to a very effective working tool. Using the automatic film-transport (min. 3 up to 36 exposures) allows a high scan efficiency and finally results in a time saving. The slides have to put into the front slide feeder.

Technical data:

Filmtype: Negative, Positive and B/W as strip (35mm) or slide (5x5cm),
 Image Sensor: Linea Color CCD
 Color Depth: 48 Bit
 Resolution: 10.000 dpi
 Scanning Time: 7 min. at 10.000 dpi and color depth of 24 Bit (incl. Magic Touch)
 Scan Area max.: 24,3 x 36,5 mm Interface: USB 2.0
 Dynamic Range: 4,2 Dmax
 Interface: USB 2.0
 Dimension: 274x183x97 mm (L x W x H)

Includes:

Hardware: Power Adaptor, USB-Cable, User Manual
 Software: Scansoftware Cyberview, Adobe Photoshop Elements 12

System requirements:

PC: XP, Vista (32 and. 64 Bit), 7 (32 and. 64Bit), 8 (32 and. 64 Bit), CPU: Intel P4 2 GHz or higher, RAM: min. 1 GB, Free HD-Space: min. 10 GB
 Mac: OS X 10.5+ or higher
 CPU: Intel Core 2 Duo, Speed 1.8 GHz
 RAM: 1 GB, 667MHz, DDR 2, SDRAM
 Free Hard Disk Space: min. 10 GB

Ref. No. 65910



DigitDia 6000

With a resolution of 5000 dpi and a colour depth of 48 bit, the reflecta DigitDia 6000 produces scans in top quality. The fast scanning speed together with the integrated dust and scratch removal feature **MAGIC TOUCH 3** allow for an effective working. The scanner offers automatic scanning of up to 100 slides straight from the magazine (CS, Universal, LKM and Paximat) to save time.

Technical data

Film type: Framed slides or framed negatives (5x5 cm)
 Image sensor: Linear colour CCD
 Colour depth: 48 bit
 Opt. resolution: 5000 x 5000 dpi
 Scanning speed: Color Scan for 1800 dpi: 50 Sec.
 ColorScan for 5000 dpi: 4 min.
 Scan range: 37 mm x 37 mm
 Optical density: 3.8 Dmax
 Interfaces: USB 2.0
 Dimensions: 300 x 290 x 125 mm (L x B x H)

Includes

Hardware: Scanner, power adapter, USB cable, User manual
 Software: Scansoftware Cyberview X, Image Editing Program

System requirements

PC: Windows XP, Vista, 7, 8, Pentium 4 2.0 GHz, Intel Mobile 1.5GHz, AMD 2.0GHz or higher; min. 1 GB RAM; free hard disc storage: 10GB or more
 Mac: Mac OS X 10.5 or higher; Intel Core 2 duo 2.0GHz or higher; min. 1 GB RAM; free hard disc storage: 10GB or more

Ref. No: 65660 (DD 6000)
 65660 + 65664 (DD 6000 + Silverfast Ai Studio)
 65660 + 65666 (DD 6000 + Silverfast Archive Suite)



Midformatscan MF5000

With the reflecta Midformatscanner it is possible to scan 120/220 mm, 6x4,5, 6x6, 6x7, 6x8, 6x9, 6x12 (Positive and Negative) as well as 35 mm. Due to the application of 3-lines-CCD Sensor with **MAGIC TOUCH 3** (automatic dust and scratch removal with infrared sensor) you can expect excellent quality.

Technical data

Film type: Negative and positive film strips (35mm) or slides (5x5cm), 6x4,5 cm, 6x6 cm, 6x7 cm, 6x8 cm, 6x9 cm, 6x12cm (negative and positive)

Opt. resolution: 3200 dpi

Scanning speed: 3200 dpi, 24 Bit = 200 Sec.

Colour depth: 48 Bit

Optical density: 3,6 Dmax

Image sensor: 3-line-CCD-sensor

Lamp: white LEDs and infrared LEDs

Scan range max. 24,3 x 36,5 mm / 118 x 56,9 mm

Interface: USB 2.0

Dimensions: 320x165x160 mm (L x B x H)

Includes

Hardware: Scanner, slideholder for 4 framed slides up to 3,2 mm thickness, filmholder for filmstrips with up to 6 pictures / 1 medium format holder for 1-3 pictures 6x4,5 cm / 1-3 pictures 6x6 cm / 1-2 pictures 6x7 cm, / 6x8 cm / 6x9 cm / 1 picture 6x12 cm, Power adapter, USB-Cable, User manual

Software: Scansoftware Cyberview X, Image Editing Program

System requirements

Mac: OS X 10.5 or higher; CPU: Intel Core 2 Duo, Speed 1.8 GHz; Memory/RAM: 1 GB, 667MHz, DDR 2 SDRAM

PC: Windows XP, Vista, 7, 8

CPU: Intel P4 2 GHz or higher; RAM: 1 GB Min.
Hard disc free space: mind. 10 GB

Ref. No: 66000





Dust Clean

Dust Clean is a safe and oil free pressure gas spray to blow out dust and dirt. According to the security check, aerosol directive 75/324/EEC, there is no ignition or explosion hazard when properly used. Dust Clean contains a clean, dry compressed gas and is very economical. Dust Clean is ideal for dust and dirt removal on slides, film strips and film reels as well as scanners and digital cameras.

Product Information:

For the cleaning of: Slides, film strips, film reels, digital cameras, film- and slide scanners and super 8 scanners
Removes dust and dirt
Not flammable
Weight: approx. 400 g
Can Size: 400 ml

Delivery Content:

Dust Clean
Spray Tube

Art.-No: 93000



Cotton gloves

You want to scan your precious slides and film strips treasures and it is often the case that fingerprints or lint can be seen on the template. To avoid this, the reflecta cotton gloves are just right. Due to their light-weight design and its good tactile feel they are just as flexible.

PrProduct Information:

Size: S/L
Color: white
100 % Cotton
Washable: up to 40 °C

Art.-No: 93002 (Size S)
93003 (Size L)





Optic cleaning-set DRY CLEAN

With optic cleaning-set Dry Clean you can easily remove big and small dirt particles, dust, grease and dirt from lenses, filters, smartphones, camcorders, laptops, LCD-displays, slide and film scanners.

Delivery Content:

Power Blower: Removes large dirt particles and dust without direct contact with the product

Multi Lens Pen: Easily removes grease, dirt and fingerprints. The round specially coated head, allows for the cleaning of hard-to-reach places. For the removal of coarse particles. The brush can be adjusted through a slider, depending on the desired brush tip strength

Microfiber cloth: (80% polyester, 20% polyamide)
For grease-free and gentle cleaning of all surfaces

Art.-No: 93001



reflecta® & SilverFast® 8

a perfect Team!



More Possibilities. More Functionality. More Quality.

To achieve optimum results when digitizing your images, you need an ideal hardware and software combination: A Reflecta scanner and award-winning SilverFast software, is the best system you can get.

SilverFast 8 has been individually optimized for every supported scanner's hardware. Therefore, the specific characteristics of each single model have been taken into account, resulting in maximum quality with every device. SilverFast has earned the reputation of being the world's best scanner and digital imaging software along with the numerous international awards it has received. Although SilverFast has been developed specifically for professional use, the handling is easy. Even beginners can create close to perfect images. Embedded QuickTime movies, the innovative WorkflowPilot and intelligent Auto Adjust features are a big help for getting started.

SilverFast 8 is available in three different versions to accommodate every user's needs and level of experience:

SilverFast SE 8 is our entry version for professional scanning.

SilverFast SE Plus 8 features extended functionality for advanced users, like the unique SilverFast Multi-Exposure®.

SilverFast Ai Studio 8 fulfills the highest demands – it is our absolute top-level version including IT8 scanner calibration and offers much more control with expert precision settings.

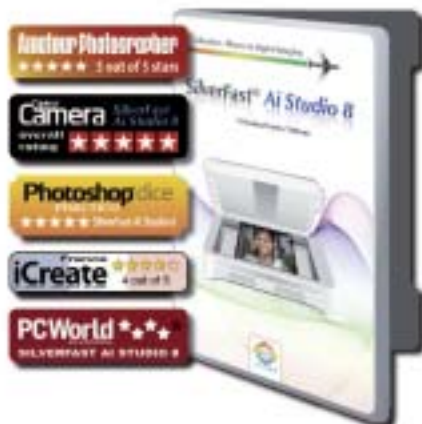
The **SilverFast Archive Suite 8** is a software package consisting of scanner and HDR image processing software – our Non Plus Ultra. Support for DNG RAW data format is new as well the comfortable Virtual Light Table VLT.

Many Reflecta scanners are available with SilverFast from factory. When purchasing this combination of hardware and software you will save real money (compared to single purchases).

You will find SilverFast for your Reflecta scanner, SilverFast software upgrades and IT8 targets for scanner calibration at www.SilverFast.com.



Link to SilverFast 8
introduction movie



« I'm excited about the future of SilverFast, especially the new 64bit HDRi feature. Finally, photographers have the ability to scan the full Dynamic Range of their film, with the added benefit of scanning the infrared channel for iSRD dust & scratch removal.»



Timothy Gray, professional photographer from Chicago

SilverFast Archive Suite 8 – “The all-inclusive Solution”

All around the world, many professional photographers use SilverFast scanner and digital imaging software, to digitally archive their valuable unique images. Therefore, they rely on the SilverFast Archive Suite with its powerful features, which ensure the highest quality and safety.

The SilverFast Archive Suite 8 provides amazing new features and allows users to build up a high-quality archive in no time following its unique non-destructive workflow.



Using SilverFast and a Reflecta DigitDia series scanner, an outstanding productivity is achievable. You can automatically digitize complete magazines of 50 or even 100 slides.



For digitizing large archives of slides, it is a good idea to scan directly in SilverFast's **64bit HDRi RAW data format** or to use the **DNG format**. Your scanner delivers RAW data through SilverFast, which contain **all readable image information**, and now even contain the **image data from the infrared channel**. This file can then be used for further image optimization, regardless of where and when you choose to work on it.



The new Virtual Light Table VLT builds an ideal link between the processes of scanning and image optimization. The SilverFast VLT is an image file browser for scanned images. It is used for quickly selecting scans, the user likes to optimize in batch mode. The customizable preview function, and the possibilities for image rating and marking facilitate this process. Having introduced the VLT, the archiving workflow is brought to perfection.

The SilverFast Archive Suite Workflow:

1. Batch Scanning into HDRi or DNG RAW data format
2. Using VLT to select images for optimization
3. Batch processing of image optimizations

SilverFast® Archive Suite 8 with optimized Workflow

Fastest Image Digitization into RAW Files with SilverFast Ai Studio 8

Auto IT8 Calibration

Auto Frame Detection

iSRD® - Infrared Dust and Scratch Removal

SilverFast Multi-Exposure® maximizing Dynamic Range

Batch Scan into 64bit HDRi/ 48bit HDR Format

Virtual Light Table for Browsing scanned Images SilverFast VLT

Browse, open, sort and rate scanned RAW Files

Select Images for Optimization and add them to the JobManager

Fastest Processing and Optimization of Image Data with SilverFast HDR Studio 8

Quick Image Correction with intelligent Image Automatics

Individual Image Optimization with SilverFast Tools

Batch Process and Output all Images



« The unusual beauty of this Archive Suite is its very efficient batch scan capability that includes the infrared iSRD data in a 64bit raw scanner file. Then when processed [...] the iSRD cleaning can be applied as part of the process to a finished image file. »

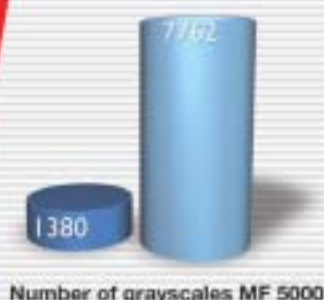
David Brooks, photographer and editor of Shutterbug magazine

« With the WorkflowPilot, scanner software SilverFast provides an expedient tool, that supports achieving good results very quickly. Manual controls and intelligent methods such as Multi-Exposure get the most out of any original. »

digit!



SilverFast 8 – Maximize Your Scanner's Dynamic Range



Dynamic Range (measured according to ISO 21550) without and with Multi-Exposure and the resulting increase of the number of captured grayscales



More information on the Multi-Exposure website

In the world of photography the most important thing is image quality. For digital cameras this usually means more megapixels and better image optimization algorithms. But how do you get the best image quality from already existing photographic material? How to retrieve a maximum image information out of slides and film negatives to transfer them nearly lossless into the digital world?

When buying a new scanner, many users especially look for the dpi resolution of the device. But **more important for image quality and sharpness is the scanner's Dynamic Range**, i.e. the number of grayscales the scanner can distinguish.

SilverFast Multi-Exposure records an original's maximum Dynamic Range by performing a double scan with a longer exposure time of the second scan. This procedure captures the highlights of the image in the first pass, and the details

in the shadows during the second pass. Afterwards an algorithm calculates the final scan, which now contains all details from both scans. (LaserSoft Imaging Patent with Auto-Alignment, Patent Nr.: EP 1744278).

Film material usually has a very high Dynamic Range. A well-exposed negative film can have a range of up to 12 f-stops. **Using SilverFast Multi-Exposure, Reflecta film scanners are able to completely capture this wide gray-scale range.** This growth in Dynamic Range has been independently measured and verified (according to ISO standard 21550).

The adjacent diagrams illustrate the Dynamic Range increase using Multi-Exposure.

An additional Multi-Exposure highlight: By scanning the original twice, **the image noise often appearing specially in darker image areas is visibly reduced.**



« SilverFast 8 mainly scores with its new architecture and improved handling compared to its predecessor. [...] The increased speed, for the first time really benefitting from the power of actual processors, is a definite plus. »

heise Foto

Auto IT8 Calibration



Consistent colors and color management are still a certain mystery for professionals and even more for consumers. With SilverFast, professionals as well as consumers **benefit from the highly added value of consistent colors**, while being able to neglect the sophisticated process behind it.



Two single mouse clicks, nothing more is needed to automatically calibrate your scanner and to calculate a unique ICC profile with the professional and patented IT8 Calibration. Predictable and reproducible colors of the imaging material – starting with the scan – are basic conditions of every imaging workflow.

IT8 Targets

When choosing IT8 targets, users should consider the original LaserSoft Imaging targets. Only these have the **world-wide unique barcode technology, which allows a fully automatic calibration**. In addition, independent testing institutes confirm superior quality from LaserSoft Imaging's own production.



Auto Adjust



SilverFast has an excellent automatic image optimization tool. Depending on the lighting conditions at the time of exposure, the Auto Adjust **correctly optimizes the images in terms of high-lights, shadows and midtones**. Thus, for every image, the Auto Adjust must decide whether color casts should be removed. A reddish color cast for example should remain, if it was caused by the long-wave sunlight in a sunset scene. In this case, just select "evening" as the image type and SilverFast performs the correct optimization. A "fine-tuning" is possible at any time using gradation curve and histogram.

NegaFix



SilverFast NegaFix® offers a convenient and professional way to **convert your negatives into brilliant positives**. You can choose a profile specific to your film from more than 120 available film profiles, which take the manufacturer, the exact film type and the film's photo response into account. With additional sliders you can adjust several parameters such as the exposure; in the SilverFast AI Studio 8 expert mode you can alter any alignment in great detail for achieving optimum results. SilverFast's NegaFix guarantees a **unique control when converting negatives to positives**. The color cast removal tool CCR even removes color casts that are on the original.





	Smartphone Scanner	x8-Scan	x7-Scan	x9-Scan	
Film-Material					
Monochrom	–	–	–	–	
Negative strips (35 mm)	•	•	•	•	
Positive strips (35 mm)	•	•	•	•	
Slides (5 x 5)	•	•	•	•	
Pocket film strips (110)	–	–	•	–	
Instamatic (126)	–	–	•	–	
Medium format	–	–	–	–	
Photos	•	–	–	–	
Documents (DIN A4)	–	–	–	–	
Business cards	–	–	–	–	
Manual loading	•	•	•	•	
Motor driven loading	–	–	–	–	
Batch scan unit	–	–	–	–	
Scan unit					
Optical resolution (DPI)	–	1800	3200	1800	
Scan range (mm)	10x15	24x36	24x36	24x36	
Colour depth (Bit)	–	24	30	24	
Optical density (Dmax)	–	–	3.0	3.0	
Linear color CCD	–	–	–	–	
CMOS sensor	–	•	•	•	
Color Contact Image Sensor (CIS)	–	–	–	–	
Scanning speed (1800 dpi)	–	2s	1s	1s	
ICE3™-/Magic Touch-Technologie	–	–/–	–/–	–	
Interface					
USB / USB2.0	–/–	–/•	–/•	–/•	
TV-Out	–	–	•	•	
Software					
Scansoftware Cyberview	–	–	–	–	
Scansoftware Silverfast SE	–	–	–	–	
Scansoftware Silverfast AI Studio	–	–	–	–	
SilverFast Archive Suite	–	–	–	–	
ArcSoft Photoimpression	–	–	–	–	
ArcSoft Mediaimpression	–	•	•	•	
OCR Optical Character Recognition	–	–	–	–	
Operating systems					
Windows	–	XP/Vista/7/8	–	–	
Mac OSx	–	10.5+	–	–	
Dimensions and weight					
Dimensions (mm)	245x125x158	100x90x165	105x104x164	108x106x143	
Weight (g)	1000	450	500	375	
Ref. No.	64380	64280	64370	64290	



iPad Scan	KWIK-Scan	PhotoScan A4	3in 1 Scanner	Super 8 Scanner
-	-	-	-	•
-	-	-	•	-
-	-	-	•	•
-	-	-	•	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
•	•	•	•	-
•	•	•	-	-
•	•	•	•	-
-	•	-	•	-
•	-	•	-	•
-	-	-	-	-
300	300/600/900	300/600	1800	1920x1080 p (Full HD) 1280 x 720 p (HD)
max. 21,59 x 35,56 cm	max. 21 cm wide	max. DIN A4	max. 13x18 cm	max. 5,78 x 4,01
-	-	-	24	-
-	-	-	-	3.0
-	-	-	-	-
-	-	-	•	-
•	•	•	-	-
6 pages/min.	-	-	1s	2,5 s per frame
-	-/-	-/-	-/-	-
-/•	-/•	-/•	-/•	-/•
-	-	-	-	-
-	-	-	-	•
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	•	•	•	-
-	-	-	XP/Vista/7/8	XP/Vista/7/8
-	-	-	-	-
308x111x72	225x32x34	269x59x44	220x208x147	213x143x23
680	350	395	1200	2700
65958	65950	65956	64220	66020



	Crystal Scan 7200	ProScan 10T	RPS 10M	DigitDia 6000	Midformatscan MF5000
Film-Material					
Negative strips (35 mm)	•	•	•	–	•
Positive strips (35 mm)	•	•	•	–	•
Slides (5 x 5)	•	•	•	•	•
Pocket film strips (110)	–	–	–	–	–
Instamatic (126)	–	–	–	–	–
Medium format	–	–	–	–	6x4,5/6x6/6x7/6x8/6x9/6x12
Photos	–	–	–	–	–
Documents (DIN A4)	–	–	–	–	–
Business cards	–	–	–	–	–
Manual loading	•	•	–	–	•
Motor driven loading	–	–	•	•	–
Batch scan unit	–	–	•	•	–
Scan unit					
Optical resolution (DPI)	7200x3600	10000	10000	5000	3200
Scan range (mm)	24x36	24x36	24,3x36,5	37x37	max. 5,7x14 cm
Colour depth (Bit)	48	48	48	48	48
Optical density (Dmax)	3.2	3.9	4.2	3.8	3.6
Linear color CCD	•	•	•	•	•
CMOS sensor	–	–	–	–	–
Color Contact Image Sensor (CIS)	–	–	–	–	–
Scanning speed (1800 dpi)	35s	35s	50s	50s	
ICE3TM-/Magic Touch-Technologie	•/–	–/•	–/•	–/•	–/•
Interface					
USB / USB2.0	•/•	•/•	•/•	•/•	•/•
TV-Out	–	–	–	–	–
Software					
Scansoftware Cyberview	•	•	•	•	•
Scansoftware Silverfast SE	optional	–	–	–	–
Scansoftware Silverfast AI Studio	optional	optional	optional	optional	optional
SilverFast Archive Suite	–	–	–	optional	optional
ArcSoft Photoimpression	–	–	–	–	–
ArcSoft Mediaimpression	–	–	–	–	–
OCR Optical Character Recognition	–	–	–	–	–
Operating systems					
Windows	XP/Vista/7/8	XP/Vista/7/8	XP/Vista/7/8	XP/Vista/7/8	XP/Vista/7/8
Mac OSx	10.5 +	10.5 +	10.6 +	10.5 +	10.5 +
Dimensions and weight					
Dimensions (mm)	278x169x70	275x167x80	274x183x97	300x290x125	320x165x160
Weight (g)	1000	1000	1400	2900	5300
Ref. No.	65380	65450	65920	65910	66000



